

MEMORANDUM

TO: Winston H. Hickox
Agency Secretary
California Environmental Protection Agency

FROM: Joan E. Denton, Ph.D.
Director

DATE: August 14, 2003

SUBJECT: ADOPTION OF CHRONIC REFERENCE EXPOSURE LEVEL FOR
FLUORIDES INCLUDING HYDROGEN FLUORIDE

In accordance with Health and Safety Code, Section 44300 *et seq.* (The Air Toxics Hot Spots Information and Assessment Act, AB 2588, Connelly as amended by SB 1731, Calderon), the Office of Environmental Health Hazard Assessment (OEHHA) hereby adopts Chronic Reference Exposure Levels (RELs) for fluorides including hydrogen fluoride (attachment).

OEHHA is mandated to develop risk assessment guidelines to be used by state and local agencies in implementing the Air Toxics Hot Spots program. There are four technical support documents, which have been adopted. These describe the scientific basis for acute RELs, cancer potency factors, chronic RELs, and exposure assessments.

The third technical support document, *Air Toxics Hot Spots Program Risk Assessment Guidelines. Part III. The Determination of Chronic Reference Exposure Levels for Airborne Toxicants*, was adopted on February 23, 2000. A chronic REL is an airborne level that would pose no significant health risk to individuals exposed to that level. RELs are based solely on health considerations, and are developed from the best available data in the scientific literature. This technical support document provided chronic RELs for 22 chemicals, with a summary for each describing its chemical and physical properties, its chronic health effects, and the data used to calculate the REL. Additional chronic RELs are being developed over time.

The Scientific Review Panel, (SRP) has reviewed a number of other proposed chronic RELs at previous meetings, beginning in September 1999. At its June 20, 2003 meeting, the SRP endorsed an additional REL for fluorides (including hydrogen fluoride), bringing the total number of chemicals for which chronic RELs are provided to 79 (including three values provided

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in health assessment documents for the Toxic Air Contaminants Identification Program). The expanded list and supporting summary will be available on our Web site.

Attachment

Attachment

Chronic Reference Exposure Level Adopted by OEHHA – August 2003

<i>Substance (CAS #)</i>	<i>Chronic Inhalation REL ($\mu\text{g}/\text{m}^3$)</i>	<i>Hazard Index Target(s)</i>
Fluorides including Hydrogen Fluoride (7664-39-3)	14 $\mu\text{g HF}/\text{m}^3$; 13 $\mu\text{g F}/\text{m}^3$	Bone and teeth; respiratory system

<i>Substance (CAS #)</i>	<i>Chronic Oral REL ($\text{mg}/\text{kg}\text{-day}$)</i>	<i>Hazard Index Target(s)</i>
Fluorides including Hydrogen Fluoride (7664-39-3)	0.04	Bone and teeth

OEHHA
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